IADC
ISP PROGRAM
2010

Summary of Occupational Incidents
(Industry Totals)

Issued 30 April 2011
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Summary of Occupational Incidents Introductory Briefing:

Data gathered in the IADC Incident Statistics Program (ISP) data base, shows that the oil and gas well drilling industry continues work toward reducing incidents on rigs. With the downturn in 2009 and increase in rig demand in 2010 the incidence rates have ticked up (worsened) slightly. Although IADC ISP calculates both Incidence rates and Frequency rates, this report is based on Incidence rates which are calculated on incidents per 200,000 man-hours.

The Summary of Occupational Incidents (SOI) is compiled annually from data volunteered by drilling contractors worldwide to the IADC ISP Program. During 2010, 111 contractors representing approximately seventy eight percent of the worldwide oil and gas well drilling rig-fleet participated in the ISP representing a total of 459.391 million man-hours worked. Contractors striving for safety improvement by participating in the ISP program reported 3010 Recordable incidents, 846 Lost Time incidents including 34 fatalities.

Regional Reporting

Safety data is compiled separately for Land and Offshore operations for eight geographic regions. In 2010 the seven regions were expanded when Central/South America was separated into Central America/Caribbean as one region and South America a separate region. Due to this, the two new divisions will not have year to year comparison charts. Along these new regions, companies reported data from the United States, Europe, Canada, Africa, Middle East, and Asia Pacific. This report is not designed to measure region against region, but to provide each region tools to measure their efforts and make improvement in their safety efforts year over year.

Industry Improvement

2010 saw the drilling industry’s world wide Lost Time Incidence Rate moved up slightly from the 2009 record low LTI rate of to 0.37 which is 3% worse than 0.38 in 2010. The Recordable Incident rate increased to 1.31 which is 7% worse than the 2009 report of 1.22. The oil and gas well drilling industry’s efforts towards safety have resulted in the industry’s occupational LTI Incidence rate to fall from more than 14.00 in 1963 to 0.38 in 2010, which is a 38 fold improvement.

Fatalities:

In 2010 the industry’s fatalities rose to 34 incidents. The 2010 fatality incidence rate was 0.014 as compared to 0.015 in 2009. According to the data reported in 2010, fifteen or the largest percentage of fatalities occurred to employees who had more than one year but less than five years service with the company. Twelve fatalities occurred to employees who had less than six months service and three with between six months and a year of service. Two of the victims had worked for the company between five to ten years and one victim had worked for the company ten years or more. Five fatalities occurred during rigging up or down operations and five during tripping operations. Ten victims were struck-by while six were caught between type incidents. Eight of the fatalities occurred to floormen, eleven additional were to supervisors of driller or above.
Fatal Incidents by activity

Fatal Incidents by type

Fatalities by Occupation

Fatalities by Time in Service

Regional Summaries: Man-Hours vs Fatalities

Contractors in the European Land and Offshore categories together worked more than 62.15 million man-hours in 2010 with no fatalities. European offshore accounted for 30.71 million man-hours with no fatality while European Land had 31.43 million man-hours and no fatalities. US Land and Offshore contractors together worked more than 118.44 million man-hours with twenty two fatalities. US Land had 84.54 million man-hours with thirteen fatalities while US water to 33.9 million man-hours and nine fatalities. Canadian contractors accounted for 3.3 million man-hours and no fatalities. Canadian Land had 2.27 million man-hours while offshore had 1.06 million man-hours and no fatalities. Central South America and Caribbean accounted for 11.75 million man-hours with one fatality. Land operations reported 7.45 million man-hours and one fat incident while water operations reported 4.3 million man-hours and no fatality. Africa combined land and offshore accounted for 56.47 million man-hours with three fatalities. Africa Land accounted for 30.39 million man-hours with three fatalities while Africa Water had 26.08 million man-hours and no fatalities. The Middle East region accounted for 97.63 million man-hours with three fatal incidents. The Land division had 67.31 million man-hours and two fatalities while there were 30.32 million man-hours and one fatality for the offshore division.
Asia Pacific accounted for 53.51 million man-hours and two fatalities. Water had 36.98 million man-hours with two fatalities while the Land Division had 16.52 million man-hours and no fatality. South America made up 56.13 million man-hours with three fatalities. Land had 33.31 million man-hours and one fatality while Water had 22.82 million man-hours and two fatalities.

Lost Time and Recordable Incidents by Region

Lost time incidents among US Offshore workers worsened 20% from 0.20 in 2009 to 0.24 in 2010, while their Total Recordable Incidence Rate improved slightly from 0.87 in 2009 to 0.86 in 2010. US Land workers saw their LTI Incidence rate worsened 10% from 0.93 in 2009 to 1.02 in 2010 and Recordable Incidence Rate worsened 12% from 3.07 in 2009 to 3.44 in 2010. European Land workers saw their LTI rate improved 33% from 0.33 for 2009 to 0.22 for 2010, while the Recordable Incidence Rate improved 34% from 0.47 in 2009 to 0.31 in 2010. European Offshore workers LTI rate improved 30% from 0.30 in 2009 to 0.21 for 2010 while the Recordable Incidence rate worsened slightly from 0.73 in 2009 to 0.74 in 2010. Canada Land had a 2009 LTI rate of 0.19 which worsened 82% to 0.35 for 2010, while their Recordable Incidence rate worsened 118% from 1.05 in 2009 to 2.29 for 2010. Canada Offshore workers saw their 2009 LTI rate of zero worsen to 0.19 for 2010. The Recordable Incidence rate of 0.94 for 2009 worsened 21% to 1.14 for 2010. Central America and Caribbean Land 2010 LTI rate was 0.48, while their Recordable Incidence rate 0.89. Central America and Caribbean Water had an LTI Rate of 0.05 and Recordable rate of 0.42 for 2010. Africa Land LTI rate for 2009 was 0.43 and improved 9% to 0.39 for 2010 while their Recordable Incidence rate improved by 23% from 1.50 in 2009 to 1.16 in 2010. Africa Water LTI rate of 0.20 for 2009 worsened 25% to 0.25 for 2010 while their Recordable Incidence rate worsened 12% from 0.81 in 2009 to 0.91 in 2010. In 2009 Middle East Land had a LTI rate of 0.23 which improved 22% to 0.18 in 2010. Their 2009 Recordable Incidence rate of 0.91 improved 5% to 0.86 in 2010. Middle East Water LTI rate worsened 53% from 0.15 in 2009 to 0.23 in 2010 and their Recordable Incidence rate worsened 17% from 0.66 in 2009 to 0.77 in 2009. Asia Pacific Land 2009 LTI rate was 0.30 and improved 40% to 0.18 in 2010, while their Recordable Incidence rate improved 10% from 1.01 in 2009 to 0.91 in 2010. Asia Pacific Water 2009 LTI rate of 0.29 improved 45% to 0.16 for 2010 and their Recordable Incidence rate improved 20% from 0.84 in 2009 to 0.67 in 2010. In 2010 South America Land had an LTI rate of 0.23 and a Recordable rate of 0.94. South America Water 2010 LTI rate was 0.39 and Recordable rate of 1.03.

Greatest Risks:

Incidents occur in many places around the rig and to all crewmembers. Many types of equipment and rig operations are involved in incidents and all parts of the body are at risk. Incident data are analyzed by occupation, body part, incident type, equipment type, operation, location time in service and time of day the incident occurred.

Data from the IADC ISP show that of all the categories, as with previous years, the Floorman position suffers the largest percentage of Lost Time and Recordable injuries.
Fingers remained the most vulnerable part of the body.

Caught Between accounted for most Lost Time and Recordable injuries and was closely followed by Struck by injuries.

“Pipes/collars/tubulars” is the equipment category responsible for the most Lost Time and Recordable incidents.
"Tripping in/out" is the operation that involves the most Lost Time and Recordable injuries and is followed closely by Rig Repairs.

It is no surprise that by far the most Lost Time and Recordable injuries in drilling operations occur on the rig floor.

Lost Time and Recordable injuries based on Time in Service were led by employees with between one to five years service followed by those who had six months to one year in service.
The Most LTI and Recordable incidents occurred between 09:00-16:00 hours.

June accounted for the most Lost Time incidents while August accounted for the most Recordable incidents.

Conclusion:

Activity in most sectors of the industry picked up in 2010, and the unfortunately industry incident rates ticked up slightly. Along with the tick up in Lost Time and Recordable injuries, the number of fatalities moved up to 34 from 32 for each of the past two years, which is a cause for concern.
## 2010 ISP Program Industry Totals

**IADC ISP Program**  
**2010 Final Report (Table 1)**  
January – December  
Note: Figures are unaudited

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>TOTAL MANHOURS</th>
<th>TOTAL MTOs</th>
<th>TOTAL RWCs</th>
<th>TOTAL LTIs</th>
<th>TOTAL FTLs</th>
<th>TOTAL RCRD</th>
<th>LTI INCID. RATE</th>
<th>LTI FREQ. RATE</th>
<th>DART INCID. RATE</th>
<th>DART FREQ. RATE</th>
<th>RCRD INCID. RATE</th>
<th>RCRD FREQ. RATE</th>
</tr>
</thead>
<tbody>
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<td>1454</td>
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<td>1.16</td>
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<td>7</td>
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<td>114</td>
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<td>176</td>
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<td>0.56</td>
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<td>0.49</td>
<td>2.45</td>
<td>0.91</td>
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<td>Middle East - Land</td>
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<td>93</td>
<td>57</td>
<td>2</td>
<td>288</td>
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<td>0.88</td>
<td>0.45</td>
<td>2.26</td>
<td>0.86</td>
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<td>117</td>
<td>0.23</td>
<td>1.15</td>
<td>0.43</td>
<td>2.14</td>
<td>0.77</td>
<td>3.86</td>
</tr>
<tr>
<td>Asia Pacific (Asia &amp; Australia) - Land</td>
<td>16,521,561</td>
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<td>27</td>
<td>15</td>
<td>0</td>
<td>75</td>
<td>0.18</td>
<td>0.91</td>
<td>0.51</td>
<td>2.54</td>
<td>0.91</td>
<td>4.54</td>
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<td>Asia Pacific (Asia &amp; Australia) - Water</td>
<td>36,983,501</td>
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<td>37</td>
<td>28</td>
<td>2</td>
<td>124</td>
<td>0.16</td>
<td>0.81</td>
<td>0.36</td>
<td>1.81</td>
<td>0.67</td>
<td>3.35</td>
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<tr>
<td>South America Land</td>
<td>33,308,714</td>
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<td>64</td>
<td>37</td>
<td>1</td>
<td>157</td>
<td>0.23</td>
<td>1.14</td>
<td>0.61</td>
<td>3.06</td>
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<td>18</td>
<td>43</td>
<td>2</td>
<td>117</td>
<td>0.39</td>
<td>1.97</td>
<td>0.55</td>
<td>2.76</td>
<td>1.03</td>
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<tr>
<td><strong>US Combined</strong></td>
<td>118,442,652</td>
<td>660</td>
<td>467</td>
<td>451</td>
<td>22</td>
<td>1600</td>
<td>0.80</td>
<td>3.99</td>
<td>1.59</td>
<td>7.94</td>
<td>2.70</td>
<td>13.51</td>
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<tr>
<td>Canada Combined</td>
<td>3,325,956</td>
<td>17</td>
<td>10</td>
<td>5</td>
<td>0</td>
<td>32</td>
<td>0.30</td>
<td>1.50</td>
<td>0.90</td>
<td>4.51</td>
<td>1.92</td>
<td>9.62</td>
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<tr>
<td>Central America &amp; Caribbean Com.</td>
<td>11,745,916</td>
<td>12</td>
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<td>42</td>
<td>0.32</td>
<td>1.62</td>
<td>0.51</td>
<td>2.55</td>
<td>0.72</td>
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<tr>
<td>European Combined</td>
<td>62,145,490</td>
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<td>68</td>
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<td>163</td>
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<td>0.32</td>
<td>1.59</td>
<td>0.52</td>
<td>2.62</td>
</tr>
<tr>
<td>Africa Combined</td>
<td>56,465,923</td>
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<td>56</td>
<td>90</td>
<td>3</td>
<td>295</td>
<td>0.33</td>
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<td>0.53</td>
<td>2.64</td>
<td>1.04</td>
<td>5.22</td>
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<td>Middle East Combined</td>
<td>97,634,268</td>
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<td>123</td>
<td>91</td>
<td>3</td>
<td>405</td>
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<td>Asia Pacific Combined</td>
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<td>64</td>
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<td>199</td>
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<td>South America Combined</td>
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<td>109</td>
<td>82</td>
<td>80</td>
<td>3</td>
<td>274</td>
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<td>1.48</td>
<td>0.59</td>
<td>2.94</td>
<td>0.98</td>
<td>4.88</td>
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**INDUSTRY TOTAL**  
459,391,495  
1286  
844  
846  
34  
3,010  
0.38  
1.92  
0.75  
3.75  
1.31  
6.55

---

<table>
<thead>
<tr>
<th>MTO = Medical Treatment Only</th>
<th>RWC = Restricted Work Case</th>
<th>LTI = Lost Time Incident</th>
<th>FTL = Fatalities</th>
<th>RCRD = Total Recordables</th>
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<tbody>
<tr>
<td>INCD = Incidence Rate (200,000 man-hours)</td>
<td>LTI INCID. Rate = (LTI + FTLs) * 200000 / Total Man-hours</td>
<td>LTI FREQ Rate = (LTI + FTLs) * 100000 / Total Man-hours</td>
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<td></td>
</tr>
<tr>
<td>DART INCID. Rate = (MTOs + RWCs + LTIs + FTLs) * 200000 / Total Man-hours</td>
<td>LTI FREQ Rate = (LTI + FTLs) * 100000 / Total Man-hours</td>
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</tr>
<tr>
<td>RCRD INCID. Rate = (MTOs + RWCs + LTIs + FTLs) * 200000 / Total Man-hours</td>
<td>RCRD FREQ Rate = (MTOs + RWCs + LTIs + FTLs) * 100000 / Total Man-hours</td>
<td></td>
<td></td>
<td></td>
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</tbody>
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**Issued 30 April 2011**  
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# IADC ISP Program
## 5 Year Summary Report (Table 2)
### Lost Time and Total Recordable Incidence/Frequency Rate

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>TYPE</th>
<th>2010 INCD Rate</th>
<th>2010 FREQ Rate</th>
<th>2009 INCD Rate</th>
<th>2009 FREQ Rate</th>
<th>2008 INCD Rate</th>
<th>2008 FREQ Rate</th>
<th>2007 INCD Rate</th>
<th>2007 FREQ Rate</th>
<th>2006 INCD Rate</th>
<th>2006 FREQ Rate</th>
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<td><strong>US Land</strong></td>
<td>LTI:</td>
<td>1.02</td>
<td>5.12</td>
<td>0.95</td>
<td>4.73</td>
<td>1.03</td>
<td>5.14</td>
<td>1.23</td>
<td>6.15</td>
<td>1.28</td>
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<td>DART:</td>
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<tr>
<td></td>
<td>RCRD :</td>
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<td>4.11</td>
<td>20.56</td>
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<td>25.30</td>
<td>5.46</td>
<td>27.3</td>
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<tr>
<td><strong>US Water</strong></td>
<td>DART:</td>
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<td>2.86</td>
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<td>0.65</td>
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<td>3.85</td>
<td>0.76</td>
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<td>RCRD :</td>
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<td>1.35</td>
<td>6.75</td>
<td>1.37</td>
<td>6.84</td>
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<td><strong>Canada Land</strong></td>
<td>LTI:</td>
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<td>1.53</td>
<td>0.59</td>
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<td></td>
<td>DART:</td>
<td>0.97</td>
<td>4.84</td>
<td>0.53</td>
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<td>0.00</td>
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<td>3.79</td>
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<td>2.71</td>
<td>1.62</td>
<td>8.11</td>
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<td>0.50</td>
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<td><strong>Central America &amp; Caribbean Water</strong></td>
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<td>4.43</td>
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<td><strong>South America Land</strong></td>
<td>LTI:</td>
<td>0.23</td>
<td>1.14</td>
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<tr>
<td><strong>South America Water</strong></td>
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<td>3.06</td>
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<td>0.22</td>
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<td>2.42</td>
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<td><strong>European Water</strong></td>
<td>DART:</td>
<td>0.27</td>
<td>1.34</td>
<td>0.36</td>
<td>1.80</td>
<td>0.85</td>
<td>4.25</td>
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<td>4.69</td>
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<td>0.40</td>
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<td>1.41</td>
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<td>0.51</td>
<td>2.56</td>
<td>0.61</td>
<td>3.04</td>
<td>0.51</td>
<td>2.55</td>
<td>0.81</td>
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<td>0.18</td>
<td>0.88</td>
<td>0.24</td>
<td>1.21</td>
<td>0.28</td>
<td>1.40</td>
<td>0.28</td>
<td>1.39</td>
<td>0.24</td>
<td>1.18</td>
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<tr>
<td><strong>Middle East Water</strong></td>
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<td>2.26</td>
<td>0.45</td>
<td>2.25</td>
<td>0.51</td>
<td>2.54</td>
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<td>2.80</td>
<td>0.51</td>
<td>2.55</td>
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<td>1.81</td>
<td>0.46</td>
<td>2.28</td>
<td>0.66</td>
<td>3.31</td>
<td>0.50</td>
<td>2.52</td>
<td>0.69</td>
<td>3.45</td>
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<tr>
<td><strong>Asia Pacific Water (Asia / Australia)</strong></td>
<td>RCRD :</td>
<td>0.67</td>
<td>3.35</td>
<td>0.85</td>
<td>4.25</td>
<td>1.15</td>
<td>5.76</td>
<td>1.05</td>
<td>5.27</td>
<td>1.03</td>
<td>5.15</td>
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<tr>
<td><strong>INDUSTRY TOTALS</strong></td>
<td>LTI:</td>
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<td>1.92</td>
<td>0.38</td>
<td>1.88</td>
<td>0.49</td>
<td>2.44</td>
<td>0.53</td>
<td>2.64</td>
<td>0.56</td>
<td>2.79</td>
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<tr>
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<td>DART:</td>
<td>0.75</td>
<td>3.753</td>
<td>0.71</td>
<td>3.568</td>
<td>0.98</td>
<td>4.91</td>
<td>1.09</td>
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<tr>
<td></td>
<td>RCRD :</td>
<td>1.31</td>
<td>6.55</td>
<td>1.23</td>
<td>6.17</td>
<td>1.62</td>
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<td>2.05</td>
<td>10.24</td>
<td>2.17</td>
<td>10.85</td>
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</tbody>
</table>

**INCD** = Incidence Rate (200,000 man-hours)
**FREQ** = Frequency Rate (1,000,000 man-hours)

**LTI** = Lost Time Incidence Rate
**DART** = Directly Adjusted Total Rate
**RCRD** = Recordable Rate

**LTI** = **RCRD** = (Lost Time Incidence Rate) * 100000 / Total Man-hours

**DART** = **FREQ** = (Directly Adjusted Total Rate) * 100000 / Total Man-hours

**RCRD** = **FREQ** = (Recordable Rate) * (RWCs + RWCs + LTI + FTl) / 1000000 / Total Man-hours

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2010 - IADC INDUSTRY TOTALS (Table 3)

<table>
<thead>
<tr>
<th></th>
<th>LAND</th>
<th>WATER</th>
<th>COMBINED</th>
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<tbody>
<tr>
<td>TOTAL MAN-HOURS</td>
<td>273,227,710</td>
<td>186,174,371</td>
<td>459,391,495</td>
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<tr>
<td>TOTAL MEDICAL TREATMENT INCIDENTS</td>
<td>956</td>
<td>330</td>
<td>1,286</td>
</tr>
<tr>
<td>TOTAL RESTRICTED WORK INCIDENTS</td>
<td>640</td>
<td>204</td>
<td>844</td>
</tr>
<tr>
<td>TOTAL LOST TIME INCIDENTS</td>
<td>642</td>
<td>204</td>
<td>846</td>
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<tr>
<td>TOTAL FATALITIES</td>
<td>20</td>
<td>14</td>
<td>34</td>
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<tr>
<td>TOTAL RECORDABLES</td>
<td>2,258</td>
<td>752</td>
<td>3,010</td>
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<tr>
<td>MTO INCIDENCE RATE</td>
<td>0.70</td>
<td>0.35</td>
<td>0.56</td>
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<tr>
<td>RWC INCIDENCE RATE</td>
<td>0.47</td>
<td>0.22</td>
<td>0.37</td>
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<tr>
<td>LTI INCIDENCE RATE</td>
<td>0.48</td>
<td>0.23</td>
<td>0.38</td>
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<tr>
<td>LTI FREQUENCY RATE</td>
<td>2.42</td>
<td>1.17</td>
<td>1.92</td>
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<tr>
<td>DART INCIDENCE RATE</td>
<td>0.95</td>
<td>0.45</td>
<td>0.75</td>
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<tr>
<td>DART FREQUENCY RATE</td>
<td>4.77</td>
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<td>3.75</td>
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<tr>
<td>RECORDABLE INCIDENCE RATE</td>
<td>1.65</td>
<td>0.81</td>
<td>1.31</td>
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<td>RECORDABLE FREQUENCY RATE</td>
<td>8.26</td>
<td>4.04</td>
<td>6.55</td>
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</tbody>
</table>

MEDICAL TREATMENT INCIDENCE RATE = MTOs X 200,000 / MAN-HOURS (LTIs NOT INCLUDED)
RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MAN-HOURS (LTIs NOT INCLUDED)
LOST TIME INCIDENCE RATE = (LTIs+FTLs) X 200,000 / MAN-HOURS
DART INCIDENCE RATE = (LTIs+FTLs+RWCs) X 200,000 / MAN-HOURS
DART INCIDENCE RATE = (LTIs+FTLs+RWCs) X 1,000,000 / MAN-HOURS
RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS
RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

Number of participating companies: 111 – Total; 103 – Land; 58 – Water

Total Industry LTI & Recordable Incidence Rates vs Man-hours (Figure 1)
Total Industry Land LTI & Recordable Incidence Rates vs Man-hours (Figure 2)

Total Industry Water LTI & Recordable Incidence Rates vs Man-hours (Figure 3)
IADC 2010 Total Industry Charts
Total Industry Lost Time Incidents by Month (Chart 1)
Based on 846 Incidents

- December: 7.67%
- January: 7.44%
- February: 7.20%
- March: 8.15%
- April: 8.15%
- May: 8.62%
- June: 10.74%
- July: 9.56%
- August: 8.50%
- September: 6.49%
- October: 8.74%
- November: 8.74%
Total Industry Recordable Incidents by Month (Chart 2)
Based on 3010 Incidents

Note: Some pie charts may not appear to show all the slices due to the small percentage the slice represents.
Total Industry Lost Time Incidents by Occupation (Chart 3)
Based on 846 Incidents
Total Industry Recordable Incidents by Occupation (Chart 4)
Based on 3010 Incidents

- Driller: 8.80%
- Roustabout: 8.93%
- Floorman: 38.89%
- Derrickman: 13.12%
- Floorhand: 7.84%
- Electrician: 1.73%
- Toolpusher: 2.16%
- Roustabout: 8.93%
- Catering Personnel: 0.86%
- Radio Oper.: 0.40%
- Subsea Eng.: 0.40%
- Other: 7.67%
- Marine Crew: 0.27%
- Deck Super.: 0.40%
- Maint. Super: 0.27%
- Truck Helper: 0.43%
- Rig Helper: 0.40%
- Truck Driver/Pusher: 1.30%
- Superint./Supervisors: 0.56%
- Barge Engin./BCO: 0.27%
- Crane/Forklift Oper: 1.06%
- Mechanic: 3.09%
- Motorman: 7.84%
- Catering Personnel: 0.86%
- Welder: 1.49%
- Truck Helper: 0.43%
- Rig Helper: 0.40%
- Truck Driver/Pusher: 1.30%
- Superint./Supervisors: 0.56%
- Barge Engin./BCO: 0.27%
- Crane/Forklift Oper: 1.06%
- Mechanic: 3.09%
- Motorman: 7.84%
- Electrician: 1.73%
- Toolpusher: 2.16%
- Driller: 8.80%
- Derrickman: 13.12%
- Floorhand: 7.84%
- Electrician: 1.73%
- Toolpusher: 2.16%
- Driller: 8.80%
- Derrickman: 13.12%
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- Electrician: 1.73%
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- Floorhand: 7.84%
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- Driller: 8.80%
- Derrickman: 13.12%
- Floorhand: 7.84%
- Electrician: 1.73%
- Toolpusher: 2.16%
- Driller: 8.80%
- Derrickman: 13.12%
- Floorhand: 7.84%
Total Industry Lost Time Incidents by Body Part (Chart 5)
Based on 846 incidents

- Head: 7.44%
- Back: 9.80%
- Tot: 20.07%
- Hand(s) / Wrist(s): 8.85%
- Arm(s): 4.96%
- Trunk/Torso: 7.91%
- Other: 6.49%
- Eyes (eyelid): 1.18%
- Skin: 0.12%
- Digestive/Inter.: 0.12%
- Lungs/Resp.: 0.12%
- Shoulder(s): 4.13%
- Neck: 0.83%
- Toes: 2.01%
- Feet/Ankles: 12.04%
- Leg(s): 6.97%
- Finger(s): 20.07%
- Elbow(s): 1.42%
- Knee(s): 5.55%
- Shoulders: 4.13%
- Eyes (eyelid): 1.18%
- Head: 7.44%
- Back: 9.80%
- Tot: 20.07%
- Hand(s) / Wrist(s): 8.85%
- Arm(s): 4.96%
- Trunk/Torso: 7.91%
- Other: 6.49%
- Eyes (eyelid): 1.18%
- Skin: 0.12%
- Digestive/Inter.: 0.12%
- Lungs/Resp.: 0.12%
- Shoulder(s): 4.13%
- Neck: 0.83%
- Toes: 2.01%
- Feet/Ankles: 12.04%
- Leg(s): 6.97%
- Finger(s): 20.07%
- Elbow(s): 1.42%
- Knee(s): 5.55%
Total Industry Recordable Incidents by Body Part
(Chart 6)
Based on 3010 Incidents

- Finger(s) 29.99%
- Hand(s) / Wrist(s) 10.53%
- Leg(s) 6.14%
- Feet/Ankles 8.24%
- Toes 1.20%
- Neck 0.53%
- Shoulder(s) 3.39%
- Elbow(s) 0.86%
- Knee(s) 3.69%
- Skin 0.10%
- Lungs/Resp. 0.27%
- Digestive/Inter. 0.46%
- Other 5.25%
- Eyes (eyelid) 2.03%
- Head 10.59%
- Back 7.17%
- Trunk/Torso 4.82%
- Arm(s) 4.75%
Total Industry Lost Time Incidents by Incident Type (Chart 7)
Based on 846 Incidents

- Struck By: 22.31%
- Struck Against: 2.83%
- Caught Between/In: 25.62%
- Slip/Fall: Different Level: 11.45%
- Slip/Fall: Same Level: 7.91%
- Struck By: 22.31%
- Struck Against: 2.83%
- Caught Between/In: 25.62%
- Slip/Fall: Different Level: 11.45%
- Slip/Fall: Same Level: 7.91%
- Caught On: 0.12%
- Caused By: 5.31%
- Sprain: 3.54%
- Heat Exh./Stroke: 1.77%
- Other: 2.01%
- Jump: 0.24%
- Exposure to Weather: 0.59%
- Debris: 0.35%
- Flame/heat/steam: 1.18%
- Electrical Shock: 0.12%
- Chemicals/Fluids Contact: 2.13%
- Strain/Overexertion: 10.98%
- Slip/Fall: Different Level: 11.45%
- Slip/Fall: Same Level: 7.91%
- Caught On: 0.12%
- Caused By: 5.31%
- Sprain: 3.54%
- Heat Exh./Stroke: 1.77%
- Other: 2.01%
- Jump: 0.24%
- Exposure to Weather: 0.59%
- Debris: 0.35%
- Flame/heat/steam: 1.18%
- Electrical Shock: 0.12%
- Chemicals/Fluids Contact: 2.13%
- Strain/Overexertion: 10.98%
Total Industry Recordable Incidents by Incident Type (Chart 8)
Based on 3010 Incidents

- Struck By: 24.45%
- Struck Against: 3.75%
- Caught Between/In: 28.90%
- Slip/Fall: Same Level: 6.45%
- Slip/Fall: Different Level: 7.24%
- Strain/Overexertion: 8.50%
- Chemicals/Fluids Contact: 2.09%
- Electrical Shock: 0.27%
- Flame/heat/steam: 0.90%
- Debris: 0.70%
- Cut: 5.48%
- Heat Exh./Stroke: 1.73%
- Caught On: 0.53%
- Other: 4.78%
- Sprain: 2.79%
- Exposure to Gas: 0.03%
- Exposure to Weather: 0.27%
- Vehicle: 1.00%
- Jump: 0.07%
- Chemical Inhal.: 0.07%
- Other: 4.78%

Issued 30 April 2011
Total Industry Lost Time Incidents by Equipment (Chart 9)
Based on 846 Incidents

- Anchor Chains/Cables/Winch: 0.94%
- Top Drive (blocks, swivel, kelly): 1.77%
- Rig Floor Winch/Deck Winch: 1.42%
- Boat Cargo: 0.12%
- Chemicals: 2.48%
- Welding, Cutting, Grinding Equipment: 0.47%
- Decks (grating, walkway): 4.37%
- Ladders: 1.89%
- Crane: 3.31%
- Pressure Hoses/Lines: 2.83%
- Material: 2.95%
- BOP Stack (well head, tree): 2.95%
- Elevators: 2.24%
- Slips (drill collar clamp): 1.77%
- Spinning Chain: 0.71%
- Iron Roughneck, Pipe Spinner, etc.: 1.53%
- Rotary: 0.71%
- Pipes/Collars/Tubulars/Csg.: 16.29%
- Cathead/Drawworks: 1.06%
- Slings: 2.48%
- Hand Tools: Manual: 4.72%
- Hand Tools: Power: 0.71%
- Engines/Pumps/Machinery: 2.48%
- Vehicles/Transport: 1.65%
- Kelly/Master Bushings: 1.06%
- Stairs: 4.13%
- Other: 26.09%
Total Industry Recordable Incidents by Equipment (Chart 10)
Based on 3010 Incidents

Tongs 6.74%
Elevators 2.62%
Slips (drill collar clamp) 2.19%
Spinning Chain 0.43%
Iron Roughneck, Pipe Spinner, etc. 1.50%
Rotary 0.63%
Pipes/Collars/Tubulars/Csg. 13.22%
Cathead/Drawworks 0.83%
Slings 2.82%
Hand Tools: Manual 8.67%
Hand Tools: Power 1.43%
Engines/Pumps/Machinery 3.65%
Vehicles/Transport. 1.56%
Kelly/Master Bushings 0.60%
Stairs 2.72%
Material 3.85%
BOP Stack well-head, tree 2.43%
Decks (grating, walkway) 3.65%
Chemicals 1.93%
Welding, Cutting, Grinding Equipment 0.76%
Rig Floor Winch/Deck Winch 1.46%
Anchor Chains/Cables/Winch 1.06%
Top Drive (blocks, swivel, kelly) 2.29%
Ladders 1.40%
Crane 3.12%
Pressure Hoses/Lines 3.89%
Boat Cargo 0.17%
Other 24.35%
Total Industry Lost Time Incidents by Operation (Chart 11)
Based on 846 Incidents

- Trip in/out, etc.: 17.12%
- Making Connection: 5.08%
- Routine Drilg Oper.: 7.56%
- Lay Down/Pick Up Pipe/Tub.: 6.38%
- Material Handling Crane, etc.: 3.31%
- Material Handling Manual: 3.78%
- Run Casing/Tubing: 4.72%
- BOP Stack, well head/tree Install/Maint.: 9.33%
- Rig Up/Down Rig Move: 11.57%
- Rig/Equip. Repairs/Maint.: 2.13%
- Mud Mix/Pump: 3.42%
- Special Ops.: 0.71%
- Cementing: 0.35%
- Walking: 5.31%
- Training: 0.12%
- Well Testing: 0.12%
- Handle Riser: 0.24%
- Run/Retrieve Anchors: 0.24%
- Travel/Transport.: 3.19%
- Other: 15.23%
- Other: 15.23%
Total Industry Recordable Incidents by Operation (Chart 12)
Based on 3010 Incidents

- **Abrasive Blasting/Paint/Scale Removal**: 0.17%
- **Training**: 0.07%
- **Trip in/out, etc.**: 13.99%
- **Making Connection**: 4.85%
- **Routine Drilg Oper.**: 7.87%
- **Run Casing/Tubing**: 3.32%
- **Lay Down/Pick up Pipe/Tub.**: 5.98%
- **Material Handling Manual**: 6.01%
- **Material Handling Crane, etc.**: 3.82%
- **Rig Up/Down Rig Move**: 12.46%
- **Rig/Equip. Repairs/Maint.**: 13.79%
- **BOP Stack, well head/tree Install/Maint.**: 3.29%
- **Travel/Transport.**: 2.06%
- **Other**: 13.46%
- **Other**: 13.46%
- **Jack Up/Down Oper.**: 0.03%
- **Handle Riser**: 0.30%
- **Run/Retrieve Anchors**: 0.07%
- **Painting & related tasks**: 0.23%
- **Abrasive Blasting/Paint/Scale Removal**: 0.17%
- **Well Testing**: 0.07%
- **Training**: 0.07%
- **Walking**: 4.45%
- **Special Oper.**: 0.83%
- **Cementing**: 0.70%
- **Mud Mix/Pump**: 2.19%
- **Rig/Equip. Repairs/Maint.**: 13.79%
- **BOP Stack, well head/tree Install/Maint.**: 3.29%
Total Industry Lost Time Incidents by Location (Chart 13)
Based on 846 Incidents

- Rig Floor: 35.18%
- Camp/Accom.: 1.18%
- SCR/Electrical Room: 0.24%
- Vehicle: 1.30%
- Cellar/Sub./Moonpool: 4.01%
- Work, change, storage, room/house: 1.65%
- Fuel/Water Stor. Tanks: 0.71%
- Machinery Spaces: 0.83%
- Stairs/Ladders: 2.95%
- Mud Pits/Tanks: 4.01%
- BOP Stack, Well-head/tree Area: 2.48%
- Mud Pump Room: 2.95%
- Shale Shaker: 1.53%
- Other: 14.05%
- Rig Pad/Rig Decks: 7.20%
- Engine/Gen. Room: 0.47%
- Forklift/Cherry Picker/Crane: 0.47%
- Derrick/Mast: 5.90%
- Catwalk/V-door: 5.08%
- Pipe Rack/Pipe Deck: 4.72%
- Other: 14.05%

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Total Industry Recordable Incidents by Location (Chart 14)
Based on 3010 Incidents

- Rig Floor: 33.75%
- Other: 11.53%
- Mud Mixing Tank/Area: 3.02%
- Mud Pits/Tanks: 3.75%
- Shale Shaker: 1.23%
- SCR/Electrical Room: 0.40%
- Engine/Gen. Room: 1.26%
- Stairs/Ladders: 1.89%
- Pipe Rack/Pipe Deck: 4.52%
- Catwalk/V-door: 3.32%
- Derrick/Mast: 5.95%
- BOP Stack, Well-head/tree Area: 2.96%
- Derrick/Mast: 5.95%
- Catwalk/V-door: 3.32%
- Pipe Rack/Pipe Deck: 4.52%
- Mud Mixing Tank/Area: 3.02%
- Mud Pits/Tanks: 3.75%
- Shale Shaker: 1.23%
- SCR/Electrical Room: 0.40%
- Engine/Gen. Room: 1.26%
- Stairs/Ladders: 1.89%
- Pipe Rack/Pipe Deck: 4.52%
- Catwalk/V-door: 3.32%
- Derrick/Mast: 5.95%
- BOP Stack, Well-head/tree Area: 2.96%
- Derrick/Mast: 5.95%
- Catwalk/V-door: 3.32%
- Pipe Rack/Pipe Deck: 4.52%
- Mud Mixing Tank/Area: 3.02%
- Mud Pits/Tanks: 3.75%
- Shale Shaker: 1.23%
- SCR/Electrical Room: 0.40%
- Engine/Gen. Room: 1.26%
- Stairs/Ladders: 1.89%
- Pipe Rack/Pipe Deck: 4.52%
- Catwalk/V-door: 3.32%
- Derrick/Mast: 5.95%
- BOP Stack, Well-head/tree Area: 2.96%
- Derrick/Mast: 5.95%
- Catwalk/V-door: 3.32%
- Pipe Rack/Pipe Deck: 4.52%
- Mud Mixing Tank/Area: 3.02%
- Mud Pits/Tanks: 3.75%
- Shale Shaker: 1.23%
- SCR/Electrical Room: 0.40%
- Engine/Gen. Room: 1.26%
- Stairs/Ladders: 1.89%
- Pipe Rack/Pipe Deck: 4.52%
- Catwalk/V-door: 3.32%
- Derrick/Mast: 5.95%
- BOP Stack, Well-head/tree Area: 2.96%
- Derrick/Mast: 5.95%
- Catwalk/V-door: 3.32%
- Pipe Rack/Pipe Deck: 4.52%
- Mud Mixing Tank/Area: 3.02%
- Mud Pits/Tanks: 3.75%
- Shale Shaker: 1.23%
- SCR/Electrical Room: 0.40%
- Engine/Gen. Room: 1.26%
- Stairs/Ladders: 1.89%
Total Industry Lost Time Incidents by Time in Service (Chart 15)
Based on 846 Incidents

- 0 mo. < 3 mos. 21.96%
- >3 mos. < 6 mos. 11.57%
- >6 mos. < 1 yr. 13.58%
- >1 yr. < 5 yrs. 36.84%
- >5 yrs. < 10 yrs. 8.03%
- 10+ yrs. 5.67%
- Other 2.36%
Total Industry Recordable Incidents by Time in Service (Chart 16)
Based on 3010 Incidents

- >6 mos. < 1 yr. 14.09%
- >3 mos. < 6 mos. 11.69%
- >1 yr. < 5 yrs. 37.24%
- 0 mo. < 3 mos. 20.27%
- >5 yrs. < 10 yrs. 8.97%
- 10+ yrs. 5.32%
- Other 2.43%
Total Industry Lost Time Incidents by Time of Day (Chart 17)
Based on 846 Incidents

- 0:00: 4.26%
- 1:00: 4.14%
- 2:00: 4.26%
- 3:00: 3.19%
- 4:00: 3.19%
- 5:00: 2.26%
- 6:00: 3.19%
- 7:00: 3.19%
- 8:00: 5.20%
- 9:00: 4.85%
- 10:00: 4.61%
- 11:00: 6.08%
- 12:00: 4.26%
- 13:00: 3.43%
- 14:00: 4.96%
- 15:00: 5.79%
- 16:00: 5.20%
- 17:00: 5.44%
- 18:00: 4.96%
- 19:00: 3.19%
- 20:00: 3.07%
- 21:00: 2.84%
- 22:00: 5.20%
- 23:00: 3.55%
- 24:00: 2.48%
- Other: 1.54%
Total Industry Recordable Incidents by Time of Day (Chart 18)
Based on 3010 Incidents

- 1:00: 3.39%
- 2:00: 3.46%
- 3:00: 3.16%
- 4:00: 2.69%
- 5:00: 2.53%
- 6:00: 3.06%
- 7:00: 3.86%
- 8:00: 5.88%
- 9:00: 5.15%
- 10:00: 5.25%
- 11:00: 4.99%
- 12:00: 5.19%
- 13:00: 4.99%
- 14:00: 5.75%
- 15:00: 6.05%
- 16:00: 4.95%
- 17:00: 4.89%
- 18:00: 4.02%
- 19:00: 3.69%
- 20:00: 3.42%
- 21:00: 2.76%
- 22:00: 4.36%
- 23:00: 3.32%
- 24:00: 1.89%
- Other: 1.33%
- 1:00: 3.39%
- 2:00: 3.46%
- 3:00: 3.16%
- 4:00: 2.69%
- 5:00: 2.53%
- 6:00: 3.06%
- 7:00: 3.86%
- 8:00: 5.88%
- 9:00: 5.15%
- 10:00: 5.25%
- 11:00: 4.99%
- 12:00: 5.19%
- 13:00: 4.99%
- 14:00: 5.75%
- 15:00: 6.05%
- 16:00: 4.95%
- 17:00: 4.89%
- 18:00: 4.02%
- 19:00: 3.69%
- 20:00: 3.42%
- 21:00: 2.76%
- 22:00: 4.36%
- 23:00: 3.32%
- 24:00: 1.89%
- Other: 1.33%
2010 ISP Program Regional Totals
Combined Land & Water
IADC 2010 US Totals (Table 4)

<table>
<thead>
<tr>
<th></th>
<th>LAND</th>
<th>WATER</th>
<th>COMBINED</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL MANHOURS</td>
<td>84,540,432</td>
<td>33,902,220</td>
<td>118,442,652</td>
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<tr>
<td>TOTAL MEDICAL TREATMENT INCIDENTS</td>
<td>611</td>
<td>49</td>
<td>660</td>
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<tr>
<td>TOTAL RESTRICTED WORK INCIDENTS</td>
<td>410</td>
<td>57</td>
<td>467</td>
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<td>TOTAL LOST TIME INCIDENTS</td>
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<td>TOTAL FATALITIES</td>
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<tr>
<td>TOTAL RECORDABLES</td>
<td>1,454</td>
<td>146</td>
<td>1,600</td>
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<table>
<thead>
<tr>
<th>INCIDENT RATE</th>
<th>LAND</th>
<th>WATER</th>
<th>COMBINED</th>
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</thead>
<tbody>
<tr>
<td>MTO INCIDENCE RATE</td>
<td>1.45</td>
<td>0.29</td>
<td>1.11</td>
</tr>
<tr>
<td>RWC INCIDENCE RATE</td>
<td>0.97</td>
<td>0.34</td>
<td>0.79</td>
</tr>
<tr>
<td>LTI INCIDENCE RATE</td>
<td>1.02</td>
<td>0.24</td>
<td>0.80</td>
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<tr>
<td>LTI FREQUENCY RATE</td>
<td>5.12</td>
<td>1.18</td>
<td>3.99</td>
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<tr>
<td>DART INCIDENCE RATE</td>
<td>1.99</td>
<td>0.57</td>
<td>1.59</td>
</tr>
<tr>
<td>DART FREQUENCY RATE</td>
<td>9.97</td>
<td>2.86</td>
<td>7.94</td>
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<tr>
<td>RECORDABLE INCIDENCE RATE</td>
<td>3.44</td>
<td>0.86</td>
<td>2.70</td>
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<tr>
<td>RECORDABLE FREQUENCY RATE</td>
<td>17.20</td>
<td>4.31</td>
<td>13.51</td>
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</table>

Companies Reporting: Land – 45; Water – 20

MEDICAL TREATMENT INCIDENCE RATE = MTOs X 200,000 / MAN-HOURS (LTIs NOT INCLUDED)
RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MAN-HOURS (LTIs NOT INCLUDED)
LOST TIME INCIDENCE RATE = (LTIs + FTLs) X 200,000 / MAN-HOURS
DART INCIDENCE RATE = (LTIs + FTLs + RWCs) X 200,000 / MAN-HOURS
DART INCIDENCE RATE = (LTIs + FTLs + RWCs) X 1,000,000 / MAN-HOURS
RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS
RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

US Total LTI & Recordable Incidence Rates vs Man-hours (Figure 4)
IADC 2010 European Totals (Table 5)

<table>
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<tr>
<th></th>
<th>LAND</th>
<th>WATER</th>
<th>COMBINED</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL MANHOURS</td>
<td>31,430,957</td>
<td>30,714,533</td>
<td>62,145,490</td>
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<tr>
<td>TOTAL MEDICAL TREATMENT INCIDENTS</td>
<td>7</td>
<td>57</td>
<td>64</td>
</tr>
<tr>
<td>TOTAL RESTRICTED WORK INCIDENTS</td>
<td>7</td>
<td>24</td>
<td>31</td>
</tr>
<tr>
<td>TOTAL LOST TIME INCIDENTS</td>
<td>35</td>
<td>33</td>
<td>68</td>
</tr>
<tr>
<td>TOTAL FATALITIES</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL RECORDABLES</td>
<td>49</td>
<td>114</td>
<td>163</td>
</tr>
</tbody>
</table>

MTO INCIDENCE RATE      | 0.04     | 0.37     | 0.21     |
RWC INCIDENCE RATE      | 0.04     | 0.16     | 0.10     |
LTI INCIDENCE RATE      | 0.22     | 0.21     | 0.22     |
LTI FREQUENCY RATE      | 1.11     | 1.07     | 1.09     |
DART INCIDENCE RATE     | 0.27     | 0.37     | 0.32     |
DART FREQUENCY RATE     | 1.34     | 1.86     | 1.59     |
RECORDABLE INCIDENCE RATE | 0.31   | 0.74     | 0.52     |
RECORDABLE FREQUENCY RATE | 1.56   | 3.71     | 2.62     |

MEDICAL TREATMENT INCIDENCE RATE = MTOs X 200,000 / MAN-HOURS (LTIs NOT INCLUDED)
RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MAN-HOURS (LTIs NOT INCLUDED)
LOST TIME INCIDENCE RATE = (LTIs+FTLs) X 200,000 / MAN-HOURS
LOST TIME FREQUENCY RATE = (LTIs+FTLs) X 1,000,000 / MAN-HOURS
DART INCIDENCE RATE = (LTIs+FTLs+RWCs) X 200,000 / MAN-HOURS
DART INCIDENCE RATE = (LTIs+FTLs+RWCs) X 1,000,000 / MAN-HOURS
RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS
RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

Companies Reporting: Land – 11 Water – 22

European Total LTI & Recordable Incidence Rates vs Man-hours (Figure 5)
### IADC 2010 Canada Totals (Table 6)

<table>
<thead>
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<th>LAND</th>
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</thead>
<tbody>
<tr>
<td>TOTAL MANHOURS</td>
<td>2,270,930</td>
<td>1,055,026</td>
<td>3,325,956</td>
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<tr>
<td>TOTAL MEDICAL TREATMENT INCIDENTS</td>
<td>15</td>
<td>2</td>
<td>17</td>
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<tr>
<td>TOTAL RESTRICTED WORK INCIDENTS</td>
<td>7</td>
<td>3</td>
<td>10</td>
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<tr>
<td>TOTAL LOST TIME INCIDENTS</td>
<td>4</td>
<td>1</td>
<td>5</td>
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<tr>
<td>TOTAL FATALITIES</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL RECORDABLES</td>
<td>26</td>
<td>6</td>
<td>32</td>
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<table>
<thead>
<tr>
<th>INCIDENT TYPE</th>
<th>LAND</th>
<th>WATER</th>
<th>COMBINED</th>
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</thead>
<tbody>
<tr>
<td>MTO INCIDENCE RATE</td>
<td>1.32</td>
<td>0.38</td>
<td>1.02</td>
</tr>
<tr>
<td>RWC INCIDENCE RATE</td>
<td>0.62</td>
<td>0.57</td>
<td>0.60</td>
</tr>
<tr>
<td>LTI INCIDENCE RATE</td>
<td>0.35</td>
<td>0.19</td>
<td>0.30</td>
</tr>
<tr>
<td>LTI FREQUENCY RATE</td>
<td>1.76</td>
<td>0.95</td>
<td>1.50</td>
</tr>
<tr>
<td>DART INCIDENCE RATE</td>
<td>0.97</td>
<td>0.76</td>
<td>0.90</td>
</tr>
<tr>
<td>DART FREQUENCY RATE</td>
<td>4.84</td>
<td>3.79</td>
<td>4.51</td>
</tr>
<tr>
<td>RECORDABLE INCIDENCE RATE</td>
<td>2.29</td>
<td>1.14</td>
<td>1.92</td>
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<tr>
<td>RECORDABLE FREQUENCY RATE</td>
<td>11.45</td>
<td>5.69</td>
<td>9.62</td>
</tr>
</tbody>
</table>

MEDICAL TREATMENT INCIDENCE RATE = MTOs X 200,000 / MAN-HOURS (LTIs NOT INCLUDED)

LOST TIME INCIDENCE RATE = (LTIs + FTLs) X 200,000 / MAN-HOURS (LTIs NOT INCLUDED)

LOST TIME FREQUENCY RATE = (LTIs + FTLs) X 1,000,000 / MAN-HOURS

DART INCIDENCE RATE = (LTIs + FTLs + RWCs) X 200,000 / MAN-HOURS

DART INCIDENCE RATE = (LTIs + FTLs + RWCs) X 1,000,000 / MAN-HOURS

RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS

RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

**Companies Reporting:** Land – 4  Water – 3

---

### Canada Total LTI & Recordable Incidence Rates vs Man-hours (Figure 6)
### IADC 2010 Central America & Caribbean Totals (Table 7)

<table>
<thead>
<tr>
<th></th>
<th>LAND</th>
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<tbody>
<tr>
<td>TOTAL MANHOURS</td>
<td>7,448,154</td>
<td>4,297,762</td>
<td>11,745,916</td>
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<tr>
<td>TOTAL MEDICAL TREATMENT INCIDENTS</td>
<td>8</td>
<td>4</td>
<td>12</td>
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<tr>
<td>TOTAL RESTRICTED WORK INCIDENTS</td>
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<td>11</td>
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<tr>
<td>TOTAL LOST TIME INCIDENTS</td>
<td>17</td>
<td>1</td>
<td>18</td>
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<td>TOTAL FATALITIES</td>
<td>1</td>
<td>0</td>
<td>1</td>
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<tr>
<td>TOTAL RECORDABLES</td>
<td>33</td>
<td>9</td>
<td>42</td>
</tr>
<tr>
<td>MTO INCIDENCE RATE</td>
<td>0.21</td>
<td>0.19</td>
<td>0.20</td>
</tr>
<tr>
<td>RWC INCIDENCE RATE</td>
<td>0.19</td>
<td>0.19</td>
<td>0.19</td>
</tr>
<tr>
<td>LTI INCIDENCE RATE</td>
<td>0.48</td>
<td>0.05</td>
<td>0.32</td>
</tr>
<tr>
<td>LTI FREQUENCY RATE</td>
<td>2.42</td>
<td>0.23</td>
<td>1.62</td>
</tr>
<tr>
<td>DART INCIDENCE RATE</td>
<td>0.67</td>
<td>0.23</td>
<td>0.51</td>
</tr>
<tr>
<td>DART FREQUENCY RATE</td>
<td>3.36</td>
<td>1.16</td>
<td>2.55</td>
</tr>
<tr>
<td>RECORDABLE INCIDENCE RATE</td>
<td>0.89</td>
<td>0.42</td>
<td>0.72</td>
</tr>
<tr>
<td>RECORDABLE FREQUENCY RATE</td>
<td>4.43</td>
<td>2.09</td>
<td>3.58</td>
</tr>
</tbody>
</table>

Medical treatment incidence rate = MTOs x 200,000 / MAN-HOURS (LTIs NOT INCLUDED)
Restricted work incidence rate = RWCs x 200,000 / MAN-HOURS (LTIs NOT INCLUDED)
Lost time incidence rate = (LTIs+FTLs) x 200,000 / MAN-HOURS
Lost time frequency rate = (LTIs+FTLs) x 1,000,000 / MAN-HOURS
Dart incidence rate = (LTIs+FTLs+RWCs) x 200,000 / MAN-HOURS
Dart frequency rate = (LTIs+FTLs+RWCs) x 1,000,000 / MAN-HOURS
Recordable incidence rate = RECORDABLES x 200,000 / MAN-HOURS
Recordable frequency rate = RECORDABLES x 1,000,000 / MAN-HOURS

Companies Reporting:  
Land – 9  
Water – 9

Central America & Caribbean Total LTI & Recordable Incidence Rates vs Man-hours (Figure 7)

Due to this being the first year of this category, there is no data for a graph.
### IADC 2010 Africa Totals (Table 8)

<table>
<thead>
<tr>
<th></th>
<th>LAND</th>
<th>WATER</th>
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</tr>
</thead>
<tbody>
<tr>
<td>TOTAL MANHOURS</td>
<td>30,387,060</td>
<td>26,078,863</td>
<td>56,465,923</td>
</tr>
<tr>
<td>TOTAL MEDICAL TREATMENT INCIDENTS</td>
<td>91</td>
<td>55</td>
<td>146</td>
</tr>
<tr>
<td>TOTAL RESTRICTED WORK INCIDENTS</td>
<td>25</td>
<td>31</td>
<td>56</td>
</tr>
<tr>
<td>TOTAL LOST TIME INCIDENTS</td>
<td>57</td>
<td>33</td>
<td>90</td>
</tr>
<tr>
<td>TOTAL FATALITIES</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL RECORDABLES</td>
<td>176</td>
<td>119</td>
<td>295</td>
</tr>
</tbody>
</table>

#### Incidence Rates

- **MTO INCIDENCE RATE**
  - Land: 0.60
  - Water: 0.42
  - Combined: 0.52

- **RWC INCIDENCE RATE**
  - Land: 0.16
  - Water: 0.24
  - Combined: 0.20

- **LTI INCIDENCE RATE**
  - Land: 0.39
  - Water: 0.25
  - Combined: 0.33

- **LTI FREQUENCY RATE**
  - Land: 1.97
  - Water: 1.27
  - Combined: 1.65

- **DART INCIDENCE RATE**
  - Land: 0.56
  - Water: 0.49
  - Combined: 0.53

- **DART FREQUENCY RATE**
  - Land: 2.80
  - Water: 2.45
  - Combined: 2.64

- **RECORDABLE INCIDENCE RATE**
  - Land: 1.16
  - Water: 0.91
  - Combined: 1.04

- **RECORDABLE FREQUENCY RATE**
  - Land: 5.79
  - Water: 4.56
  - Combined: 5.22

**Calculation Notes**

- MEDICAL TREATMENT INCIDENCE RATE = MTOs X 200,000 / MAN-HOURS (LTIs NOT INCLUDED)
- RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MAN-HOURS (LTIs NOT INCLUDED)
- LOST TIME INCIDENCE RATE = (LTIs + FTLs) X 200,000 / MAN-HOURS
- LOST TIME FREQUENCY RATE = (LTIs + FTLs) X 1,000,000 / MAN-HOURS
- DART INCIDENCE RATE = (LTIs + FTLs + RWCs) X 200,000 / MAN-HOURS
- DART INCIDENCE RATE = (LTIs + FTLs + RWCs) X 1,000,000 / MAN-HOURS
- RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS
- RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

**Companies Reporting:**
- Land – 13
- Water – 20

### Africa Total LTI & Recordable Incidence Rates vs Man-hours (Figure 8)
### IADC 2010 Middle East Totals (Table 9)

<table>
<thead>
<tr>
<th></th>
<th>Land</th>
<th>Water</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Manhours</strong></td>
<td>67,309,316</td>
<td>30,324,952</td>
<td>97,634,268</td>
</tr>
<tr>
<td><strong>Total Medical Treatment Incidents</strong></td>
<td>136</td>
<td>52</td>
<td>188</td>
</tr>
<tr>
<td><strong>Total Restricted Work Incidents</strong></td>
<td>93</td>
<td>30</td>
<td>123</td>
</tr>
<tr>
<td><strong>Total Lost Time Incidents</strong></td>
<td>57</td>
<td>34</td>
<td>91</td>
</tr>
<tr>
<td><strong>Total Fatalities</strong></td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Recordables</strong></td>
<td>288</td>
<td>117</td>
<td>405</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Incident Type</th>
<th>Land Incidence Rate</th>
<th>Water Incidence Rate</th>
<th>Combined Incidence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTO</td>
<td>0.40</td>
<td>0.34</td>
<td>0.39</td>
</tr>
<tr>
<td>RWC</td>
<td>0.28</td>
<td>0.20</td>
<td>0.25</td>
</tr>
<tr>
<td>LTI</td>
<td>0.18</td>
<td>0.23</td>
<td>0.19</td>
</tr>
<tr>
<td>LTI Frequency</td>
<td>0.88</td>
<td>1.15</td>
<td>0.96</td>
</tr>
<tr>
<td>Dart</td>
<td>0.45</td>
<td>0.43</td>
<td>0.44</td>
</tr>
<tr>
<td>Dart Frequency</td>
<td>2.26</td>
<td>2.14</td>
<td>2.22</td>
</tr>
<tr>
<td>Recordable Incidence</td>
<td>0.86</td>
<td>0.77</td>
<td>0.83</td>
</tr>
<tr>
<td>Recordable Frequency</td>
<td>4.28</td>
<td>3.86</td>
<td>4.15</td>
</tr>
</tbody>
</table>

Medical Treatment Incidence Rate = MTOs X 200,000 / Man-hours (LTIs NOT INCLUDED)
Restricted Work Incidence Rate = RWCs X 200,000 / Man-hours (LTIs NOT INCLUDED)
Lost Time Incidence Rate = (LTIs + FTLs) X 200,000 / Man-hours
Lost Time Frequency Rate = (LTIs + FTLs) X 1,000,000 / Man-hours
DART Incidence Rate = (LTIs + FTLs + RWCs) X 200,000 / Man-hours
DART Frequency Rate = (LTIs + FTLs + RWCs) X 1,000,000 / Man-hours
Recordable Incidence Rate = Recordables X 200,000 / Man-hours
Recordable Frequency Rate = Recordables X 1,000,000 / Man-hours

Companies Reporting: Land – 22 Water – 18

### Middle East Total LTI & Recordable Incidence Rates vs Man-hours (Figure 9)
**IADC 2010 Asia Pacific Totals** *(Table 10)*

<table>
<thead>
<tr>
<th></th>
<th>LAND</th>
<th>WATER</th>
<th>COMBINED</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL MANHOURS</td>
<td>16,521,561</td>
<td>36,983,501</td>
<td>53,505,062</td>
</tr>
<tr>
<td>TOTAL MEDICAL TREATMENT INCIDENTS</td>
<td>33</td>
<td>57</td>
<td>90</td>
</tr>
<tr>
<td>TOTAL RESTRICTED WORK INCIDENTS</td>
<td>27</td>
<td>37</td>
<td>64</td>
</tr>
<tr>
<td>TOTAL LOST TIME INCIDENTS</td>
<td>15</td>
<td>28</td>
<td>43</td>
</tr>
<tr>
<td>TOTAL FATALITIES</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL RECORDABLES</td>
<td>75</td>
<td>124</td>
<td>199</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INCIDENT TYPE</th>
<th>LAND</th>
<th>WATER</th>
<th>COMBINED</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTO INCIDENCE RATE</td>
<td>0.40</td>
<td>0.31</td>
<td>0.34</td>
</tr>
<tr>
<td>RWC INCIDENCE RATE</td>
<td>0.33</td>
<td>0.20</td>
<td>0.24</td>
</tr>
<tr>
<td>LTI INCIDENCE RATE</td>
<td>0.18</td>
<td>0.16</td>
<td>0.17</td>
</tr>
<tr>
<td>LTI FREQUENCY RATE</td>
<td>0.91</td>
<td>0.81</td>
<td>0.84</td>
</tr>
<tr>
<td>DART INCIDENCE RATE</td>
<td>0.51</td>
<td>0.36</td>
<td>0.41</td>
</tr>
<tr>
<td>DART FREQUENCY RATE</td>
<td>2.54</td>
<td>1.81</td>
<td>2.04</td>
</tr>
<tr>
<td>RECORDABLE INCIDENCE RATE</td>
<td>0.91</td>
<td>0.67</td>
<td>0.74</td>
</tr>
<tr>
<td>RECORDABLE FREQUENCY RATE</td>
<td>4.54</td>
<td>3.35</td>
<td>3.72</td>
</tr>
</tbody>
</table>

MEDICAL TREATMENT INCIDENT RATE = MTOs X 200,000 / MAN-HOURS (LTIs NOT INCLUDED)
RESTRICTED WORK INCIDENT RATE = RWCs X 200,000 / MAN-HOURS (LTIs NOT INCLUDED)
LOST TIME INCIDENCE RATE = (LTIs+FTLs) X 200,000 / MAN-HOURS
LOST TIME FREQUENCY RATE = (LTIs+FTLs) X 1,000,000 / MAN-HOURS
DART INCIDENCE RATE = (LTIs+FTLs+RWCs) X 200,000 / MAN-HOURS
DART INCIDENCE RATE = (LTIs+FTLs+RWCs) X 1,000,000 / MAN-HOURS
RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS
RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

Companies Reporting: Land – 16 Water – 27

**Asia Pacific Total LTI & Recordable Incidence Rates vs Man-hours** *(Figure 10)*
### IADC 2010 South American Totals (Table 11)

<table>
<thead>
<tr>
<th></th>
<th>LAND</th>
<th>WATER</th>
<th>COMBINED</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL MANHOURS</td>
<td>33,308,714</td>
<td>22,817,514</td>
<td>56,126,228</td>
</tr>
<tr>
<td>TOTAL MEDICAL TREATMENT INCIDENTS</td>
<td>55</td>
<td>54</td>
<td>109</td>
</tr>
<tr>
<td>TOTAL RESTRICTED WORK INCIDENTS</td>
<td>64</td>
<td>18</td>
<td>82</td>
</tr>
<tr>
<td>TOTAL LOST TIME INCIDENTS</td>
<td>37</td>
<td>43</td>
<td>80</td>
</tr>
<tr>
<td>TOTAL FATALITIES</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL RECORDABLES</td>
<td>157</td>
<td>117</td>
<td>274</td>
</tr>
<tr>
<td>MTO INCIDENCE RATE</td>
<td>0.33</td>
<td>0.47</td>
<td>0.39</td>
</tr>
<tr>
<td>RWC INCIDENCE RATE</td>
<td>0.38</td>
<td>0.16</td>
<td>0.29</td>
</tr>
<tr>
<td>LTI INCIDENCE RATE</td>
<td>0.23</td>
<td>0.39</td>
<td>0.30</td>
</tr>
<tr>
<td>LTI FREQUENCY RATE</td>
<td>1.14</td>
<td>1.97</td>
<td>1.48</td>
</tr>
<tr>
<td>DART INCIDENCE RATE</td>
<td>0.61</td>
<td>0.55</td>
<td>0.59</td>
</tr>
<tr>
<td>DART FREQUENCY RATE</td>
<td>3.06</td>
<td>2.76</td>
<td>2.94</td>
</tr>
<tr>
<td>RECORDABLE INCIDENCE RATE</td>
<td>0.94</td>
<td>1.03</td>
<td>0.98</td>
</tr>
<tr>
<td>RECORDABLE FREQUENCY RATE</td>
<td>4.71</td>
<td>5.13</td>
<td>4.88</td>
</tr>
</tbody>
</table>

MEDICAL TREATMENT INCIDENCE RATE = MTOs X 200,000 / MAN-HOURS (LTIs NOT INCLUDED)
RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MAN-HOURS (LTIs NOT INCLUDED)
LOST TIME INCIDENCE RATE = (LTIs+FTLs) X 200,000 / MAN-HOURS
LOST TIME FREQUENCY RATE = (LTIs+FTLs) X 1,000,000 / MAN-HOURS
DART INCIDENCE RATE = (LTIs+FTLs+RWCs) X 200,000 / MAN-HOURS
DART INCIDENCE RATE = (LTIs+FTLs+RWCs) X 1,000,000 / MAN-HOURS
RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MAN-HOURS
RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MAN-HOURS

**Companies Reporting:**
- Land – 9
- Water – 12

South America Total LTI & Recordable Incidence Rates vs Man-hours (Figure 11)
Due to this being the first year of this category, there is no data for a graph.